

Title (en)  
CLOTH EVALUATION APPARATUS

Title (de)  
VORRICHTUNG ZUR STOFFBEURTEILUNG

Title (fr)  
DISPOSITIF D'ÉVALUATION DE TISSU

Publication  
**EP 2602605 A1 20130612 (EN)**

Application  
**EP 10855646 A 20100806**

Priority  
JP 2010063418 W 20100806

Abstract (en)  
A cloth evaluation apparatus can grasp the piercing property and the cutting property with a cloth in advance. The cloth evaluation apparatus (1) comprising: a measuring member (21, 71, 81) having, on its distal side, a measuring part (22) to pass through a cloth (c, d); a cloth/measuring part moving means (30, 40) for moving the cloth (c, d) or the measuring member (21, 71) so that the measuring part (22) passes through the cloth (c, d); a cloth supporting means (23, 23', 31') for supporting the cloth (c, d) at around a passing-through point, in the cloth (c, d), of the measuring part (22) from both sides of the cloth (c, d) when the measuring part (22) passes through the cloth (c, d); and a load detecting means (25) for detecting a load being applied to the measuring member (21, 71) while the measuring part (22) passes through the cloth (c, d). The measuring part (22) includes a piercing force measuring portion (22A, 72A) whose outer diameter gradually decreases toward its acute tip (22A') and, after the tip (22A') sticks the cloth (c, d), the piercing force measuring portion (22A, 72A) can pass through the cloth (c, d) while expanding a grain of the cloth (c, d). The measuring part (22) also includes a cutting force measuring portion (22B, 72B) adjacent proximally to the piercing force measuring portion (22A, 72A), the cutting force measuring portion (22B, 72B) having a shear face (22Bb) which can push a part of the cloth (c, d) in the passing direction to separate the part from the cloth (c, d) as the measuring part (22) passes through the cloth (c, d).

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